

REMARKS/ARGUMENTS

The Examiner is thanked for the Official Action dated December 9, 2010. This amendment and request for reconsideration is intended to be fully responsive thereto.

Claims 30 and 31 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 29-31 have been canceled and new claims 36-38 have been added. New claims 36-38 are identical to claims 29-31. The difference between claims 29-31 and 36-38 is that claim 36 depends upon claim 35 (introducing "at least one internal tube") instead of claim 26, while claims 37-38 depend upon claim 36 instead of claim 29. No new matter has been added.

Claims 1, 3-5, 8, 13, 15 and 25 were rejected under 35 U.S.C 102(b) as being anticipated by Carter (US 2,847,193). The applicant respectfully disagrees.

The Examiner alleges that Carter discloses all the limitations of claim 1. Specifically, the Examiner erroneously interprets the concentric tubes 1 and 2 of Carter, which form a water passage therebetween and an air space 35 inside the tube 1 (see Fig. 2 of Carter), as a hydraulic fluid accumulator.

While recognizing that the pending claims must be given their broadest reasonable interpretation consistent with the specification, we trust that that the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in

the art would reach, as stated in MPEP § 2111. Also, the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. MPEP § 2111.01.

The hydraulic fluid accumulator is commonly defined in the art as a rechargeable hydraulic energy storage device. Those skilled in the art would readily recognize that the hydraulic fluid accumulator is a pressure storage reservoir in which a non-compressible hydraulic fluid is held under pressure by an external force in a rigid shell (or container). That external source can be a spring, a compressed gas, or a raised weight. In modern, often mobile, hydraulic systems the preferred item is a gas-charged, or hydro-pneumatic, accumulator, but simple systems may be spring-loaded. The hydro-pneumatic accumulators, for example, include an expandable bladder, diaphragm or piston that separates a compressed gas from hydraulic fluid. Moreover, the word “accumulator” is defined by the Dictionary.com (Unabridged. Based on the Random House Dictionary, © Random House, Inc. 2010.), as “*Hydraulics*. a vessel in which air is trapped and compressed by the liquid, thus storing energy to supply liquid under pressure when the demand of the system is greater than the capacity of the pump”.

Those skilled in the art would not possibly interpret the concentric tubes 1 and 2 of Carter as hydraulic fluid accumulator, as the water in the passage between the concentric tubes 1 and 2 cannot be stored under pressure by the air in the air space 35 for future use. Carter clearly discloses that the air in the air space 35 does not interact with the water in the passage between the concentric tubes 1 and 2, and notes that “it is of incidental importance whether or not tube 1 is tightly sealed at the ends as neither water nor air in space 35 affects the operation of the exchanger) (see col. 2, lines 35-38 of Carter).

Contrary to the Examiner's allegations, Carter discloses ah eat exchanger for heating coating material in the passage between the tubes 2 and 3 by the hot water in the hot water passages between the tubes 1-2 and 3-4, not the pressure vessel assembly comprising a hydraulic fluid accumulator and at least one cooling passage provided adjacent to the hydraulic fluid accumulator for receiving a flow of a cooling fluid therethrough for cooling the hydraulic fluid accumulator, as recited in claim 1.

Anticipation under Section 102 requires that a prior art reference disclose every claim element of the claimed invention. *E.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1574, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986). Anticipation must be found in a single reference. *E.g., Studiengesellschaft Kohle, m.b.H. v. Dart Indus., Inc.*, 726 F.2d 724, 726-27, 220 U.S.P.Q. 841 (Fed. Cir. 1984). The absence of any element of the claim from the cited reference negates anticipation. *E.g., Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 715, 223 U.S.P.Q. 1264 (Fed. Cir. 1984).

Therefore, Applicant respectfully submits that the applied document, *i.e.*, the '193 patent to Carter, does not meet this standard of anticipation. Accordingly, for this reason alone, the rejection of claims 1, 3-5, 8, 13, 15 and 25 under U.S.C. 102(b) over Carter is improper.

Claims 1, 3-5, 10, 15 and 25 were rejected under 35 U.S.C 102(b) as being anticipated by Dalin (US 2,822,136). The applicant respectfully disagrees.

The Examiner alleges that Dalin discloses all the limitations of claim 1. Specifically, the Examiner erroneously interprets the water tank 9 of Dalin (see Figs. 1-3 and col. 3, lines 23-27 of Dalin) as a hydraulic fluid accumulator. Moreover, the Examiner erroneously

interprets the air passage 18 of the combustion chamber 5 (provided for heating water in the water tank 9) as a cooling passage provided for cooling the hydraulic fluid accumulator.

As argued above regarding the patentability of claim 1 over Carter, Applicant believes that those skilled in the art would not possibly interpret the water tank 9 of Dalin as the hydraulic fluid accumulator.

Those skilled in the art would not possibly interpret the water tank 9 of Dalinas hydraulic fluid accumulator, as the water in the water tank 9 cannot be stored under pressure by the air or any other means for future use. Dalin clearly discloses that the water in the water tank 9 is simply heated by the hot air generated by the combustion chamber 5 and flowing through the air passage 18.

Contrary to the Examiner's allegations, Dalin discloses a combined hot air furnace and domestic water heater for heating both air and water, not the pressure vessel assembly comprising a hydraulic fluid accumulator and at least one cooling passage provided adjacent to the hydraulic fluid accumulator for receiving a flow of a cooling fluid therethrough for cooling the hydraulic fluid accumulator, as recited in claim 1.

Therefore, Applicant respectfully submits that the applied document, *i.e.*, the '136 patent to Dalin, does not meet this standard of anticipation. Accordingly, for this reason alone, the rejection of claims 1, 3-5, 10, 15 and 25 under U.S.C. 102(b) over Dalin is improper.

Claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Carter in view of Rains (US 5,127,441). The Examiner alleges that it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the spiral wrapping (12) of Rains made of resilient material in the Carter's heat exchanger for a purpose of

providing an alternative material for the spiral wrapping that is suitable for whatever liquid or gas are transported through the system. The applicant respectfully disagrees.

First, claim 9 depends upon the base claim 1, thus all the arguments regarding the patentability of claim 1 is equally applicable to claim 9, which further defines the invention over the prior art.

Moreover, those skilled in the art would readily realize that the spiral wrapping made of resilient material is not appropriate material in a heated environment of the heat exchanger of Carter, because it is well known in the art that resilient material quickly deteriorates when subjected to heat. For this reason, the spiral wrapping in the Carter's heat exchanger is made of steel (see col. 2, lines 39-41 of Carter). Thus, the Examiner fails to explain the reasoning that leads to a legal conclusion of obviousness when rejecting claims on that ground. Clearly, the prior art provides no logical reason, suggestion or motivation to combine teachings of Carter and Rains.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dalinin view of Rains. The applicant respectfully disagrees.

First, claims 8-9 depend upon the base claim 1, thus all the arguments regarding the patentability of claim 1 is equally applicable to claims 8-9, which further defines the invention over the prior art.

Moreover, those skilled in the art would readily realize that the spiral wrapping made of resilient material is not appropriate material in a heated environment of the combined hot air furnace and water heater of Dalin (that includes the combustion chamber 5) because it is well known in the art that resilient material quickly deteriorates when subjected to heat.

Those skilled in the art would realize that if, for the sake of arguments, the combination of and modification of Dalinand Rains suggested by the Examiner is made by placing the spiral wrapping (12) of Rains made of resilient material in the hot air passage 18 of Dalin supplied with the hot air from the furnace (the combustion chamber 5), the resilient spiral wrapping in the hot air passage 18 would quickly melt and/or burn.

Thus, the Examiner fails to explain the reasoning that leads to a legal conclusion of obviousness when rejecting claims on that ground. Clearly, the prior art provides no logical reason, suggestion or motivation to combine teachings of Dalinand Rains.

Claims 26-33 were rejected under 35 U.S.C. 103(a) as being unpatentable over Michel (US 4,520,840) in view of Carlson (US 4,380,150). The applicant respectfully disagrees.

First, the Examiner erroneously interprets the atmosphere or feed pump as a pressurized gas reservoir external to the outer casing.

While recognizing that the pending claims must be given their broadest reasonable interpretation consistent with the specification, we trust that that the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach, as stated in MPEP § 2111. Also, the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. MPEP § 2111.01. Those skilled in the art would not possibly interpret the “atmosphere” (commonly defined as “the gaseous envelope surrounding the earth; the air”) as a pressurized gas reservoir. As for the “feed pump”, the feed pump 21 of Michel is a hydraulic pump, which cannot possibly be interpreted by those skilled in the art as a pressurized gasreservoir.

Therefore, even if the combination of and modification of Michel and Carlson suggested by the Examiner could be made, the resulting hydro-pneumatic energy system still would lack the pressurized gas reservoir external to the outer casing, and being in fluid communication with the compartment within the outer casing for pressurizing the hydraulic working fluid within the outer casing.

Second, MPEP 2141.01(a) specifically states that in order to rely on a reference as a basis for rejection of an applicant's invention under 35 U.S.C. 103, the reference must be in the field of applicant's endeavor or be reasonably pertinent, i.e. it must be analogous prior art. Clearly, Carlson that discloses the invention relates to power units actuated hydraulically and more particularly to hydraulically actuated fluid pumps (Class 60: POWER PLANTS) is not analogous to the claimed invention that recites a pressure vessel assembly including a hydraulic fluid accumulator.

Therefore, the rejection of claims 26-33 under 35 U.S.C. 103(a) over Michel and Carlson is improper.

The Examiner further noted that claims 34 and 35 were objected to as being dependent upon the rejected base claims 1 and 26, respectively, but would be allowable if rewritten in independent form including all the limitation of the base claim and any intervening claims. As it was argued above, claims 1 and 26 define the present invention over the prior art. Therefore, claims 34 and 35 define the present invention over the prior art and are in condition for allowance. Nevertheless, claim 35 has been rewritten in independent form

Appl. No. 10/572,908
In re Rose, K.
Reply to Office Action of Dec. 9, 2010

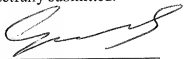
including all the limitation of the base claim 26. No new matter has been added.

As noted above, new claims 36-38, replacing canceled claims 29-31, have been added.No new matter has been added.

It is respectfully submitted that claims 1, 3-5, 8-10, 13, 15,25-28 and 32-38 define the invention over the prior art of record and are in condition for allowance, and notice to that effect is earnestly solicited. Should the Examiner believe further discussion regarding the above claim language would expedite prosecution they are invited to contact the undersigned at the number listed below.

Respectfully submitted:

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